



706 Rejection of Claims [R-2]

... The goal of examination is to clearly articulate any rejection early in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity. ...

With all due respect, the Examiner disingenuously indicates that he is unable to locate 37 C.F.R § 104(c)(2). It should have been apparent to the Examiner that applicants were referring to 37 C.F.R § 1.104(c)(2). For the Examiner's convenience, the pertinent portion is reproduced below.

37 CFR 1.104 Nature of examination.

(c) Rejection of claims.

(2) In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

Applicants further note that MPEP § 706.02(j) states (in pertinent part which is equally relevant to novelty rejections):

... It is important for an examiner to properly communicate the basis for a rejection so that the issues can be identified early and the applicant can be given fair opportunity to reply. ...

Because the first office action failed to clearly articulate the basis of the rejection, did not clearly explain the pertinence of the cited portion, and did not properly communicate the basis for the rejection, applicants have been deprived of a fair opportunity to completely reply. The present office action attempts to cure some deficiencies in the rejection by way of numbered paragraph 11, which offers a partial explanation of some of the Examiner's positions. However, the response is incomplete and, by making the rejection final, applicants do not have a fair opportunity to reply. Applicants note that the Examiner's Response to Arguments do not form any portion of the rejection of record. Applicants respectfully request that the finality of the present office action be withdrawn.

The Examiner maintains the objection to the specification as not including a "Brief Summary of the Invention". Applicant hereby respectfully traverses the objection and kindly points out to the Examiner that a "Brief Summary of the Invention" section is optional since neither the rules nor the patent statute requires a patent applicant to provide such summary. As discussed in 37 CFR § 1.73:

A brief summary of the invention indicating its nature and substance, which may include a statement of the object of the invention, *should* precede the detailed description. Such summary *should, when set forth*, be commensurate with the invention as claimed and any object recited should be that of the invention as claimed. [emphasis added] see 37 CFR § 1.73.

Thus, Applicant respectfully points out that the use of the word "should" and the phrase "when set forth" indicates that inclusion of a "Brief Summary of the Invention" section is optional rather than mandatory. As a result, it is believed there is no legal basis upon which to require a patent applicant to provide a "Brief Summary of the Invention" section in a patent application. Therefore, the objection should be withdrawn.

Claims 1-7, 13-19, and 25-31 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,470,238 (Nizar). Applicants respectfully traverse this rejection for the following reasons.

Claim 1, 13, and 25 each recite, among other things, features related to calculating a temperature estimate of the device and controlling access to the device in accordance with the calculated temperature estimate. Nizar fails to teach or suggest these claim recitations.

The office action relies on col. 11, line 52 - col. 12, line 2 of Nizar for allegedly disclosing a controller adapted to calculate a temperature estimate of a device and to control access to the device in accordance with the calculated temperature estimate. However, this analysis is incorrect. For the Examiner's convenience, the cited portion is reproduced below:

FIG. 7 is a block diagram of one embodiment of the invention implemented with a weighted counter. A chipset typically has several groups of I/O interfaces. The package and die temperatures can be predicted by summing the power dissipated by the various I/O interfaces. In the previously described embodiments, the throttling mechanism consisted of a simple counter. The counter assumed that all I/O interfaces dissipated the same amount of power per unit I/O. The counter monitored the amount of I/O traffic being driven from the chip over a period of time. When the value of the counter exceeded a programmed limit the I/O traffic was halted or other corrective action was taken. For example, a chipset that has 3 I/O interfaces; A 700, B 702, and C 704 as illustrated in the figure. Based on calculations it may be determined that when 300 MB/s of traffic is driven on interface C 704 the package and die thermal limits are reached. The throttle

counter limit must therefore be set to 300 MB/s to keep the package temperature within its limit.

The office action, for the first time in numbered paragraph 11, clarifies the Examiner's position that the portion "package and die temperatures can be predicted" is relied upon for allegedly corresponding to the recited temperature estimate. The office action, for the first time, further clarifies that the "summing" is relied upon for the recited calculation. Knowing the Examiner's position is of course important to providing the applicants a fair opportunity to reply.

Applicants first note that the cited portion is completely devoid of any express mention of a calculated temperature estimate. The Examiner relies on an out of context word "summing" for the recited calculation of a temperature estimate. In context, the cited portion actually reads "summing the power dissipated". To the extent that the office action relies on the indicated "summing" for the recited calculation, Nizar teaches only calculating an accumulated power dissipated, which is different from and does not identically describe the recited calculated temperature estimate. In fact, the accumulated power dissipation is substantially the same as the accumulated thermal load from the previously relied upon Craft reference, which the Examiner has admitted is different from the recited calculated temperature estimate.

The Nizar reference states that "The package and die temperatures can be predicted by summing the power dissipated by the various I/O interfaces." However, nowhere in Nizar is a predicted temperature calculation ever made. The statement merely refers to the fact that the temperature of the package and die has some relationship to the sum of the power dissipation. Clearly, the predicted package / die temperature is not equal to the sum of the dissipated power. Rather, some other calculation must be made to arrive at a predicted temperature based on the sum. Nizar does not teach or suggest that this calculation is ever made. Nizar only teaches that by using a weighted counter the power dissipation can be kept within appropriate limits.

As noted above, each of claims 1, 13, and 25 further recite, among other things, features related to controlling access to the device in accordance with the calculated temperature estimate. Even assuming, for the sake of argument, that the predicted package / die temperature mentioned in Nizar in some way corresponded to some calculated temperature estimate, the controller described in the cited portion does not use the mentioned predicted temperature to control access to the package / die.

In contrast to the present invention as recited in claims 1, 13, and 25, Nizar discloses only the conventional system which tracks the number of accesses to a device and increments or decrements counters based on the number of accesses and a weighted count value. As noted in the prior response, Nizar merely describes the operation of an I/O counter. The cited portion mentions controlling an access rate when a certain amount of I/O traffic is reached. However, the cited portion does not teach or suggest using the predicted temperature to control access to the device. In fact, the cited portion clearly states that "Based on calculations it may be determined that when 300 MB/s of traffic is driven on interface C 704 the package and die thermal limits are reached. The throttle counter limit must therefore be set to 300 MB/s to keep the package temperature within its limit." (Emphasis added) Accordingly, the controller described in Nizar controls access to the package / die based on the throttle counter limit and a determined maximum amount of traffic, and not based on any calculated temperature estimate.

Because, among other things, Nizar fails to teach or suggest features related to calculating a temperature estimate of the device and controlling access to the device in accordance with the calculated temperature estimate, claims 1, 13, and 25 are not anticipated by and are patentable over Nizar. Claims 2-7 depend from claim 1 and are likewise patentable. Claims 14-19 depend from claim 13 and are likewise patentable. Claims 26-31 depend from claim 25 and are likewise patentable.

The rejection of the dependent claims is likewise incorrect and each of the dependent claims is believed to be separately patentable over Nizar. In the interest of compact prosecution, an abridged analysis follows.

With respect to claims 2-7, 14-19, and 26-31, the office action cites various portions or figures of Nizar, for allegedly disclosing these claims, without any supporting analysis or statements as to how the cited portions or figures might read on the claims. Even with reference to the cited portions, it is not apparent to applicants how the Examiner might be applying the reference against the claims.

If the rejection is maintained, applicants respectfully request a new, non-final office action in compliance with 37 C.F.R. § 1.104(c)(2), setting forth the Examiner's position with particularity as to how the cited portions of Nizar allegedly read on each and every claim recitation of the dependent claims. In the absence of the Examiner setting forth sufficient analysis to establish anticipation, claims 2-7, 14-19, and 26-31 are not anticipated by and are separately patentable over Nizar.

Such clarification was previously requested, but not provided. Without a clearly articulated basis of the rejection, which clearly explains the pertinence of the cited portion and properly communicates the basis for the rejection, applicants have been deprived of a fair opportunity to reply. In any event, the Examiner has the burden in the first instance to establish anticipation by showing how each and every claim recitation is described in the cited reference. The Examiner has failed to meet this burden and the rejection should be withdrawn.

In view of the foregoing, favorable reconsideration and withdrawal of the rejections is respectfully requested. Early notification of the same is earnestly solicited. If there are any questions regarding the present application, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,

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Date

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